Hongyan Fu

List of Publications by Year
in descending order

103 papers	1,889 citations	257450 24 h-index	289244 40 g-index
107 all docs	107 docs citations	107 times ranked	1309 citing authors

#	Article	IF	Citations
1	Large-Coverage White-Light Controller Combining Adaptive QoS-Enhanced Mqam-NOMA for High-Speed Visible Light Communication. Journal of Lightwave Technology, 2022, 40, 415-422.	4.6	4
2	Pulse interactions in periodic and genetic-algorithm-optimized aperiodic epsilon-near-zero multilayers. Journal of the Optical Society of America B: Optical Physics, 2022, 39, 258.	2.1	2
3	Parallel Mini/Micro-LEDs Transmitter: Size-Dependent Effect and Gbps Multi-User Visible Light Communication. Journal of Lightwave Technology, 2022, 40, 2329-2340.	4.6	9
4	Kerr Frequency Comb Generation in Microsphere Resonators With Normal Dispersion. Journal of Lightwave Technology, 2022, 40, 1092-1097.	4.6	3
5	3.8 Gb/s PAM-4 UOWC System Over a 2-m Underwater Channel Enabled by a Single-Pixel 175-Î¼m GaN-Based Mini-LED. IEEE Photonics Journal, 2022, 14, 1-7.	2.0	8
6	Inverse Design of High-Dimensional Nanostructured 2Ã—2 Optical Processors Based On Deep Convolutional Neural Networks. Journal of Lightwave Technology, 2022, 40, 2926-2932.	4.6	5
7	Fiber-Chip Bi-Wavelength Multiplexing With Subwavelength Single-Etch Grating Coupler and Diplexer. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	1
8	Fluorescent concentrator based MISO-NOMA for visible light communications. Optics Letters, 2022, 47, 902.	3.3	6
9	Supercontinuum comb generated by soliton molecule pulse laser injecting into a nonlinear amplifying loop mirror. Optics and Laser Technology, 2022, 150, 107884.	4.6	0
10	Silicone Rubber Coated Non-Adiabatic Tapered Fiber Combined With Online Vernier Interferometer for Temperature Detection. IEEE Sensors Journal, 2022, 22, 8530-8536.	4.7	3
11	Light arrays measure up on a chip the size of a fingertip. Nature, 2022, 603, 232-233.	27.8	2
12	Highly sensitive refractive index sensor based on plastic optical fiber balloon structure. Optics Letters, 2022, 47, 1697.	3.3	6
13	Real-Time Receive-Forward NLOS Visible Light Communication System Based on Multiple Blue Micro-LED Nodes. Photonics, 2022, 9, 211.	2.0	2
14	Net 4 Gb/s underwater optical wireless communication system over 2 m using a single-pixel GaN-based blue mini-LED and linear equalization. Optics Letters, 2022, 47, 1976.	3.3	13
15	Application and comparison of active and transfer learning approaches for modulation format classification in visible light communication systems. Optics Express, 2022, 30, 16351.	3.4	4
16	Optical Uplink, D2D and IoT Links Based on VCSEL Array: Analysis and Demonstration. Journal of Lightwave Technology, 2022, 40, 5083-5096.	4.6	3
17	Evolution of optical wireless communication for B5G/6G. Progress in Quantum Electronics, 2022, 83, 100398.	7.0	33
18	LiDAR integrated IR OWC system with the abilities of user localization and high-speed data transmission. Optics Express, 2022, 30, 20796.	3.4	6

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19	Ultrafast dynamic switching of optical response based on nonlinear hyperbolic metamaterial platform. Optics Express, 2022, 30, 21634.	3.4	8
20	Compact Mach-Zehnder Interferometer for Practical Vernier Effect Sensing System With High Extinction Ratio. IEEE Photonics Journal, 2022, 14, 1-6.	2.0	3
21	Multigigabit Visible Light Communication Based on High-Bandwidth InGaN Quantum Dot Green Micro-LED. ACS Photonics, 2022, 9, 2354-2366.	6.6	13
22	Spectrally Scanning LiDAR Based on Wide-Angle Agile Diffractive Beam Steering. IEEE Photonics Technology Letters, 2022, 34, 850-853.	2.5	0
23	4-bit DAC based 6.9Gb/s PAM-8 UOWC system using single-pixel mini-LED and digital pre-compensation. Optics Express, 2022, 30, 28014.	3.4	6
24	Observation of Soliton Molecules in a Robust All PM Mode-Locked Fiber Laser With Nonreciprocal Phase Bias. IEEE Photonics Journal, 2021, 13, 1-10.	2.0	2
25	Fiber Optic Temperature Sensor With Online Controllable Sensitivity Based on Vernier Effect. IEEE Sensors Journal, 2021, 21, 21555-21563.	4.7	17
26	Dual-layer SiNx-on-SOI grating coupler as an efficient higher-order fiber mode multiplexer. , 2021, , .		1
27	115-MHz Linear NPE Fiber Laser Using All Polarization-Maintaining Fibers. IEEE Photonics Technology Letters, 2021, 33, 81-84.	2.5	16
28	Optimization of Epsilon-Near-Zero Multilayers for Near-Perfect Light Absorption Using an Enhanced Genetic Algorithm. IEEE Photonics Journal, 2021, 13, 1-10.	2.0	7
29	Full-duplex high-speed indoor optical wireless communication system based on a micro-LED and VCSEL array. Optics Express, 2021, 29, 3891.	3.4	22
30	Three-Port Dual-Wavelength-Band Grating Coupler for WDM-PON Applications. IEEE Photonics Technology Letters, 2021, 33, 159-162.	2.5	6
31	Quasi-coherent noise-like pulses in a mode-locked fiber laser with a 3D rotatable polarization beam splitter. Optics Letters, 2021, 46, 1305.	3.3	13
32	Virtually imaged phased-array-based 2D nonmechanical beam-steering device for FMCW LiDAR. Applied Optics, 2021, 60, 2177.	1.8	8
33	Ultrahigh sensitive surface plasmon sensor using a nanofilm coated D-type photonic crystal fiber. Applied Optics, 2021, 60, 2591.	1.8	6
34	Inverse Design for Silicon Photonics: From Iterative Optimization Algorithms to Deep Neural Networks. Applied Sciences (Switzerland), 2021, 11, 3822.	2.5	41
35	1.3â€‰â€‰GHz E-O bandwidth GaN-based micro-LED for multi-gigabit visible light communication. Photonics Research, 2021, 9, 792.	7.0	47
36	Solid-state FMCW LiDAR with two-dimensional spectral scanning using a virtually imaged phased array. Optics Express, 2021, 29, 16547.	3.4	28

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37	Analysis of Deep Neural Network Models for Inverse Design of Silicon Photonic Grating Coupler. Journal of Lightwave Technology, 2021, 39, 2790-2799.	4.6	26
38	Numerical investigations on the cascaded high harmonic and quasi-supercontinuum generations in epsilon-near-zero aluminum-doped zinc oxide nanolayers. Results in Physics, 2021, 24, 104086.	4.1	11
39	Comparison Study of Multi-Slot Designs in Epsilon-Near-Zero Waveguide-Based Electro-Optical Modulators. IEEE Photonics Journal, 2021, 13, 1-12.	2.0	13
40	Experimental investigation of 16.6 Gbps SDM-WDM visible light communication based on a neural network receiver and tricolor mini-LEDs. Optics Letters, 2021, 46, 2888.	3.3	15
41	Real-Time Multi-User Video Optical Wireless Transmission Based on a Parallel Micro-LEDs Bulb. IEEE Photonics Journal, 2021, 13, 1-11.	2.0	13
42	High-efficiency dual-band-multiplexing three-port grating coupler on 220-nm silicon-on-insulator with 248-nm deep-UV lithography. Optics Letters, 2021, 46, 3308.	3.3	10
43	Multi-user accessible indoor infrared optical wireless communication systems employing VIPA-based 2D optical beam-steering technique. Optics Express, 2021, 29, 20175.	3.4	4
44	Epsilon-near-zero photonics: infinite potentials. Photonics Research, 2021, 9, 1616.	7.0	75
45	Manipulation of epsilon-near-zero wavelength for the optimization of linear and nonlinear absorption by supercritical fluid. Scientific Reports, 2021, 11, 15936.	3.3	9
46	Ultra-broadband and ultra-compact polarization beam splitter based on a tapered subwavelength-grating waveguide and slot waveguide. Optics Express, 2021, 29, 28066.	3.4	33
47	Ultra-compact dual-mode mode-size converter for silicon photonic few-mode fiber interfaces. Optics Express, 2021, 29, 33728.	3.4	13
48	Dual-Wavelength-Band Grating Coupler on 220-nm Silicon-on-Insulator With High Numerical Aperture Fiber Placed Perfectly Vertically. Journal of Lightwave Technology, 2021, 39, 5902-5909.	4.6	3
49	8.75â€‰â€‰Gbps visible light communication link using an artificial neural network equalizer and a single-pixel blue micro-LED. Optics Letters, 2021, 46, 4670.	3.3	11
50	A High-Speed Visible Light Communication System Using Pairs of Micro-Size LEDs. IEEE Photonics Technology Letters, 2021, 33, 1026-1029.	2.5	3
51	Misalignment Analysis of a High-Speed Uplink OWC System Based on a 940-nm VCSEL. IEEE Photonics Technology Letters, 2021, 33, 1022-1025.	2.5	5
52	OFDM-Based Generalized Optical MIMO. Journal of Lightwave Technology, 2021, 39, 6063-6075.	4.6	24
53	Digital Pre-Equalization for OFDM-Based VLC Systems: Centralized or Distributed?. IEEE Photonics Technology Letters, 2021, 33, 1081-1084.	2.5	23
54	Ultrasensitive temperature sensor with Vernier-effect improved fiber Michelson interferometer. Optics Express, 2021, 29, 1090.	3.4	83

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55	Linear Polarization-maintaining Fiber Laser Mode-locked by Nonlinear Polarization Evolution. , 2021, , .		0
56	Quasi-coherent noise-like pulses in a simplified nonlinear polarization evolution mode-locked fiber laser. , 2021, , .		0
57	Commensalism of quasi-coherent noise-like and conventional soliton pulse in a simplified NPE mode-locked fiber laser. , 2021, , .		1
58	Encapsulation-Enabled Perovskiteâ€“PMMA Films Combining a Micro-LED for High-Speed White-Light Communication. ACS Applied Materials & Interfaces, 2021, 13, 54143-54151.	8.0	43
59	Vernier effect assisted sucrose sensor based on a cascaded Sagnac interferometer with no-core fiber. Biomedical Optics Express, 2021, 12, 7338.	2.9	10
60	Deep Learning-Assisted Design of Integrated 2Ã—2 Linear Optical Processors. , 2021, , .		0
61	High Performance In-line Mach-Zehnder Interferometer as Reference Arm for Vernier Effect Generation. , 2021, , .		1
62	Silicon-on-insulator grating couplers for dual-band and triple-band multiplexing. , 2021, , .		0
63	High-speed Spectral-scanning FMCW LiDAR System Based on Tunable VCSEL. , 2021, , .		2
64	Dynamic Epsilon-Near-Zero Wavelength Tuning and Switching Properties of Hyperbolic Metamaterials. , 2021, , .		0
65	Compact Solid-state Coherent LiDAR based on In-fiber Beam Scanner. , 2021, , .		0
66	Ultra-compact linear mode-locking fiber laser in all polarization-maintaining fibers. , 2021, , .		0
67	Grating Couplers on Silicon Photonics: Design Principles, Emerging Trends and Practical Issues. Micromachines, 2020, 11, 666.	2.9	110
68	State-of-the-Art Optical Microfiber Coupler Sensors for Physical and Biochemical Sensing Applications. Biosensors, 2020, 10, 179.	4.7	15
69	Tunable Electro- and All-Optical Switch Based on Epsilon-Near-Zero Metasurface. IEEE Photonics Journal, 2020, 12, 1-10.	2.0	21
70	Stimulated Brillouin Scattering by Dual Lasers Pumping in WGM Microcavities. IEEE Photonics Journal, 2020, 12, 1-8.	2.0	1
71	Comparative study on epsilon-near-zero transparent conducting oxides: High-order chromatic dispersions and modeling of ultrashort pulse interactions. Physical Review A, 2020, 102, .	2.5	15
72	Sub-Pulses Releasing From Noise-Like Pulses in a Passively Mode-Locked Fiber Laser. IEEE Photonics Technology Letters, 2020, 32, 925-928.	2.5	2

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73	An all polarization-maintaining fiber laser mode locked by nonlinear amplifying loop mirror with different biases. Laser Physics, 2020, 30, 085104.	1.2	10
74	Edge Couplers in Silicon Photonic Integrated Circuits: A Review. Applied Sciences (Switzerland), 2020, 10, 1538.	2.5	111
75	State-of-the-Art and Perspectives on Silicon Waveguide Crossings: A Review. Micromachines, 2020, 11, 326.	2.9	40
76	High-Order Harmonic Generations in Epsilon-Near-Zero Aluminum-Doped Zinc Oxide Nanopyramid Array. , 2020, , .		3
77	Giant Enhancement of Third- and Fifth-Harmonic Generations in Epsilon-Near-Zero Nanolayer. , 2020, , .		1
78	Precise Tuning of Epsilon-Near-Zero Properties in Indium Tin Oxide Nanolayer by Supercritical Carbon Dioxide. , 2020, , .		2
79	Versatile multi-soliton patterns of noise-like pulses in a passively mode-locked fiber laser. Optics Express, 2020, 28, 912.	3.4	27
80	Multi-user high-speed QAM-OFDMA visible light communication system using a 75-Âµm single layer quantum dot micro-LED. Optics Express, 2020, 28, 18332.	3.4	13
81	A compact and polarization-insensitive silicon waveguide crossing based on subwavelength grating MMI couplers. Optics Express, 2020, 28, 27268.	3.4	22
82	Towards a 20 Gbps multi-user bubble turbulent NOMA UOWC system with green and blue polarization multiplexing. Optics Express, 2020, 28, 31796.	3.4	34
83	2â€‰â€‰Gbps/3â€‰â€‰m airâ€“underwater optical wireless communication based on a single-layer quantum dot blue micro-LED. Optics Letters, 2020, 45, 2616.	3.3	39
84	Silicon Photonic Vertical Few-mode Fiber Interface Designed by Adjoint Optimization. , 2020, , .		0
85	High-speed Long-distance Optical Wireless Communication Based on a 940-nm VCSEL with 4.46-Gbps QAM-OFDM. , 2020, , .		2
86	Gbps Spatial Diversity Visible Light Communication System Using a Pair 75-Î¼m Micro-LED. , 2020, , .		2
87	High-speed Visible Light Communication System Based on a Packaged Single Layer Quantum Dot Blue Micro-LED with 4-Gbps QAM-OFDM. , 2020, , .		5
88	Dual-wavelength-band Multiplexed Grating Coupler on Multilayer SiN-on-SOI Photonic Integrated Platform. , 2020, , .		5
89	VCSEL-Based Multi-user Optical Wireless Communication System Using Non-Orthogonal Multiple Access. , 2020, , .		4
90	Fiber Tip Temperature Sensor Based on PVA Filled Silica Tube Fabry-Perot Interferometer. , 2020, , .		2

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91	An Erbium-Doped Fiber Whispering-Gallery-Mode Microcavity Laser. IEEE Photonics Technology Letters, 2019, 31, 1650-1653.	2.5	9
92	State of the Art and Perspectives on Silicon Photonic Switches. Micromachines, 2019, 10, 51.	2.9	50
93	Robust all polarization-maintaining femtosecond fiber laser with various phase bias. , 2019, , .		1
94	Self-interaction of ultrashort pulses in an epsilon-near-zero nonlinear material at the telecom wavelength. Optics Express, 2019, 27, 37298.	3.4	27
95	A Spectral Reconstruction Algorithm of Miniature Spectrometer Based on Sparse Optimization and Dictionary Learning. Sensors, 2018, 18, 644.	3.8	40
96	Compact PSR Based on an Asymmetric Bi-level Lateral Taper in an Adiabatic Directional Coupler. Journal of Lightwave Technology, 2016, 34, 985-991.	4.6	26
97	Temperature-Insensitive Fiber Bragg Grating Based Tilt Sensor With Large Dynamic Range. Journal of Lightwave Technology, 2011, 29, 1714-1720.	4.6	77
98	Demultiplexing of photonic crystal fibre sagnac interferometric pressure sensors using discrete wavelet transform. , 2009, , .		0
99	Multiplexing of polarization-maintaining photonic crystal fiber based Sagnac interferometric sensors. Optics Express, 2009, 17, 18501.	3.4	52
100	Pressure sensor realized with polarization-maintaining photonic crystal fiber-based Sagnac interferometer. Applied Optics, 2008, 47, 2835.	2.1	260
101	A Novel Fiber Bragg Grating Sensor Configuration for Long-Distance Quasi-Distributed Measurement. IEEE Sensors Journal, 2008, 8, 1598-1602.	4.7	32
102	High-speed fibre Bragg grating sensor interrogation using dispersion-compensation fibre. Electronics Letters, 2008, 44, 618.	1.0	36
103	Long-distance and quasi-distributed FBG sensor system using a SOA based ring cavity scheme. , 2007, , .		2